

WHAT IS CLAIMED IS:

Sub 1
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1. A table saw comprising:
a base;
a first table mounted to the base;
a second table; and
first and second rails having first and second ends, the first ends slidably mounted to the first table and the second ends rigidly mounted to the second table such that the second table is slidably movable relative to the first table.

2. The table saw according to claim 1, wherein the rails are rip fence rails rigidly mounted to the second table.

3. The table saw according to claim 1, wherein the first table further comprises a plurality of slides mounted on the first table and engagable with first and second rails.

4. The table saw according to claim 3, wherein the second table is adapted to slide along the plurality of slides mounted on the first table.

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5. The table saw according to claim 1, further comprising a locking mechanism for securing the second table in any position relative to the first table within a set of predetermined limits of travel.

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6. The table saw according to claim 5, wherein the locking mechanism further comprises a lever extending from a first surface when the locking mechanism is in an unlocked position.

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The table saw according to claim 6, wherein the lever is flush with the first surface in a locked position.

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8. The table saw table according to claim 5, wherein the locking mechanism comprises means for applying equal locking pressure to first and second rails.

9. The table saw according to claim 5, wherein the locking mechanism comprises a cam positioned in a free floating bushing.

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10. The table saw according to claim 9, wherein the cam is connected to opposing first and second clamping rods, the clamping rods being engagable with first and second rails to lock the second table in any position relative to the first table when a lever connected to the cam is in a locked position.

Sub 12
11. The table saw table according to claim 9, wherein the locking mechanism is attached to a second surface.

12. The table saw according to claim 1, wherein at least one handle is formed in the first table.

13. The table saw according to claim 1, wherein the first table further comprises at least one miter gauge groove in the first table.

14. The table saw according to claim 1, wherein a rip fence attaches to the first and second rails.

15. The table saw according to claim 14, wherein the rip fence comprises:
a longitudinal body with a first end;
a head with at least one head glide, the head being attached to the first end and
engagable with the first rail; and
at least one spring finger incorporated onto the at least one head glide such that
the rip fence head is biased to squared engagement with the first rail.
16. The table saw according to claim 1, further comprising a rip fence scale attached
to the first rail.
17. The table saw according to claim 16, wherein the rip fence scale comprises:
a flexible tape measure extending along a top side of the first rail and continuing
around both first and second ends of the first rail to extend along at least a
portion of the length of an underside of the first rail.
18. The table saw according to claim 17, wherein a tension spring connects first and
second ends of the flexible tape measure.
19. The table saw according to claim 17, wherein a point on the flexible tape measure
is attached to the first table.
20. The table saw according to claim 19, wherein the flexible tap measure is fixed
relative to a blade of the table saw.

21. The table saw according to claim 17, wherein the flexible tape measure travels around the first rail in response to movement of the second table.

22. The table saw according to claim 21, wherein the distance traveled by the flexible tape measure is substantially equal to the distance the second table moves relative to the first table.

23. The table saw according to claim 20, wherein a point on the flexible tape remains stationary with respect to the blade in response to movement of the second table.

24. The table saw according to claim 1, further comprising a blade guard comprising:
a mounting plate with at least two pins extending therefrom;
a guard connected to the mounting plate;
wherein the at least two pins are engagable with the table saw to cause the guard to self align with a saw blade.

25. The table saw according to claim 24, wherein at least one of the at least two pins is a fastening device.

26. The table saw according to claim 1, further comprising a cradle assembly pivotally attached to the first table.

27. The table saw according to claim 26, wherein the cradle assembly includes recesses for receiving at least two alignment pins.

28. The table saw according to claim 26, wherein the cradle assembly further comprises:

a cradle having first and second mounts;

an elevation mechanism mounted to the cradle, the elevation mechanism comprising:

a first bar with a first end and a second bar, the first bar having a threaded portion and a first bevel gear at the first end;

a second bevel gear engagable with the first bevel gear;

a crank shaft with first and second ends, wherein the first end of the crank shaft is connected to the second bevel gear and the second end of the crank shaft is connected to a crank handle; and

a motor assembly mounted to the elevation mechanism.

29. The table saw according to claim 28, wherein the first and second bars are positioned on opposing sides of the motor assembly.

30. The table saw according to claim 28, wherein the motor assembly attaches to first and second bars at a total of three connection points.

31. The table saw according to claim 30, wherein two of the three connection points are located along the first bar.

32. The table saw according to claim 31, wherein at least one of the two connection points located along the first bar engages the threaded portion.

33. The table saw according to claim 26, wherein the cradle assembly further comprises a bevel mechanism.

34. The table saw according to claim 33, wherein at least a portion of the cradle mount defines a gear rack, and wherein the bevel mechanism further comprises a gear engagable with the gear rack.

35. The table saw according to claim 34, further comprising a locking mechanism for securing the cradle assembly at any desired bevel angle.

36. A rip fence for a table saw comprising:

- a) longitudinal body with first and second ends;
- b) a head with at least one head glide, the head being attached to the first end and engagable with a first rail; and
- c) a spring finger incorporated onto the at least one head glide.

37. The rip fence for a table saw according to claim 36 further comprising a second end glide attached to the second end and engagable with a second rail.

38. The rip fence for a table saw according to claim 37 further comprising a fence lock rod extending the length of the longitudinal body for locking the rip fence into engagement with the first and second rails in any desired position along the rails.

39. The rip fence for a table saw according to claim 36 wherein the spring finger is biased to adjust the rip fence head into engagement with the first rail.

40. The rip fence for a table saw according to claim 39 wherein the spring finger is biased to adjust the rip fence head into substantially squared engagement with the first rail such that the rip fence is substantially parallel to a blade of the table saw.

41. A rip fence scale for use with a table saw comprising:
a flexible tape measure having first and second ends, the flexible tape measure including a given point fixable to a stationary portion of the table saw;
first and second guides situated in a spaced relationship, the flexible tape measure extending around the first and second guides; and
a tensioned fastener connecting the first and second ends.

42. The rip fence scale for use with a table saw according to claim 41, wherein the given point on the flexible tape measure adapted to be aligned with a blade of the table saw.

43. The rip fence scale for use with a table saw according to claim 41, wherein at least one the guides is attachable to a movable table extension.

44. The rip fence scale for use with a table saw according to claim 41, further comprising a longitudinal member, wherein the first and second guides are situated on first and second ends of the longitudinal member.

45. A blade guard for use with a table saw comprising:
a mounting plate with at least two pins extending therefrom;
a guard connected to the support;
wherein the at least two pins are engagable with the table saw to cause the guard to self align with a table saw blade.

46 The blade guard for use with a table saw according to claim 45, further comprising a threaded knob connecting the guard to the table saw.

47. A cradle assembly for a table saw comprising:
a cradle comprising first and second mounts;
an elevation mechanism mounted to the cradle; the elevation mechanism comprising;
a first bar with a first end and a second bar, the first bar having a threaded portion and a first bevel gear at the first end;
a second bevel gear engagable with the first bevel gear;
a crank shaft with first and second ends, wherein the first end of the crank shaft is connected to the second bevel gear and the second end of the crank shaft is connected to a crank handle; and
a motor assembly mounted to the elevation mechanism.

48. The cradle assembly of claim 47, wherein the first mount further comprises a first slot, and the second mount further comprises a second slot

49. The cradle assembly of claim 48, wherein the first and second slots are arcuate.

50. The cradle assembly of claim 49, wherein the motor assembly is rotatable within the first and second slots.

51. A cradle assembly for a table saw comprising:
a cradle comprising first and second mounts; and
a bevel mechanism comprising:
i) a gear rack along an edge of the first mount; and

ii) a gear engagable with the gear rack.

52. The cradle assembly of claim 51, further comprising a locking bar having first and second ends extending through first and second slots in the first and second mounts.

53. The cradle assembly of claim 52, wherein the locking bar is U-shaped.

54. The cradle assembly of claim 53, wherein the first end of the locking bar is connected to a cam and lever, the cam and lever being rotatable between a locked and an unlocked position.

55. The cradle assembly of claim 54, wherein the cam and lever transmit a clamping force on the first and second cradle mounts in the locked position via the locking bar.

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